UNITED STATES PATENT AND TRADEMARK OFFICE

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10/824,858	04/14/2004	Daisuke Kondo	9683/186	7113

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/824,858	KONDO ET AL.
	Examiner	Art Unit	
	Dung Lam	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6 and 8-10* is/are rejected.

7)☒ Claim(s) *2 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Specification

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent
Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV,
reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional
> descriptive material." In this context, "functional descriptive material" consists of data structures and
> computer programs which impart functionality when employed as a computer component. (The
> definition of "data structure" is "a physical or logical relationship among data elements, designed to
> support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and
> Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited
> to music, literary works and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium it becomes
> structurally and functionally interrelated to the medium and will be statutory in most cases since use of
> technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32
> F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a
> computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33
> F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in
> memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at
> 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

4.   Claim(s) 8, 9 and 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 8, 9 and 10 define an embodying functional descriptive material. However, the claims do not define a computer-readable medium or memory and is thus non-statutory (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since the use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed program can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kotake (US-2002/0,126,914).

With regarding **claim 1**, **Kotake** discloses a mobile communication terminal comprising:

position information acquiring means for acquiring position information (Fig. 5; GPS 97; [0048-0049]);

photographing means for acquiring images of field (Figs. 2-3; camera 91);

position information assigning means for associating each of the images, which are acquired by the photographing means in a predetermined time interval (Fig. 6; [0040]; the video frames data inherently include a plurality of images), with the position information which is acquired by the position information acquiring means and specifies the position at which the image is acquired (0048-0049; the video frames data inherently include a plurality of images);

video generating means for generating a video including frames each associated with the position information concerning the acquired position, based on a plurality of images which are photographed by the photographing means (91) and include the images each associated with the position information by the position information assigning means (Fig. 1; abstract; [0039-0049; 0059]);

storage means (10) for storing the video generated by the video generating means ([0038]) and items of the position information (20) which are associated with the frames included in the video ([0039-0040]); and

transmitting means for transmitting the video and the items of position information associated with the frames included in the video (Fig. 1; see data bus from

image-map association unit 30 to associated data storage unit 50; [0038-0040]), which

are stored in the storage means (10).

With regarding **claim 8**, **Kotake** discloses a program for causing a mobile

communication terminal to operate as;

position information acquiring means for acquiring position information (Fig. 5;
GPS 97; [0048-0049]);

photographing means for acquiring images of field (Figs. 2-3; camera 91);

position information assigning means for associating each of the images, which

are acquired by the photographing means in a predetermined time interval (Fig. 6;

[0040]; the video frames data inherently include a plurality of images), with the position

information which is acquired by the position information acquiring means and

specifies the position at which the image is acquired ([0048-0049]);

video generating means for generating a video including frames each associated

with the position information concerning the acquired position, based on a plurality of

images which are photographed by the photographing means (91) and include the

images each associated with the position information by the position information

assigning means and for storing the video and items of the position information

associated with the frames of the video in a storage means (abstract; [0039-0049;

0059]); and

transmitting means for transmitting the video and the items of position

information associated with the frames included in the video (Fig. 1; see data bus from

image-map association unit 30 to associated data storage unit 50; [0038-0040]), which

are stored in the storage means (10).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 3-4, 5-6 and 9-10 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kotake in view of Rodden (US-2004/0,107,181).

With regarding **claim 3, Kotake** discloses a mobile communication terminal

comprising:

receiving means (associated data storage unit 50) for receiving a video which

includes frames each associated with position information for specifying the acquired

position, and items of the position information ([0038-0040]);

position information acquiring means for acquiring position information ([0040]);

However, Kotake fails to explicitly disclose searching means for specifying,

among the items of position information received by the receiving means, the position

information corresponding to the position information acquired by the position

information acquiring means to specify the frame of the video associated with the

specified position information; and playback means for displaying the frame of the video specified by the searching means.

In an analogous art, Rodden teaches a multimedia storage database having a relational database for convenient storage and retrieval of data elements based on user-entered contextual search elements (abstract). Rodden further teach a step for acquiring data element (202; Fig. 10; [0057-0063]) to obtain position data and/or for entering search element to retrieve and display all matching data elements (see step 222-226; 228; [0064-0066]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to modify the device of Kotake by having a multimedia storage database of Rodden in order to enter search element information and display all matching data elements. The modifications thus provide more convenient and powerful tool for multimedia searching.

With regarding **claim 4, Kotake** in view of **Rodden** discloses the mobile communication terminal, wherein the playback means displays the video received by the receiving means (Rodden: [0019]), the mobile communication terminal further comprises map display means for displaying two-dimensional map information and displaying (Kotake: [0040-0041]), by superimposing on the two-dimensional map information, a travel locus based on the items of position information associated with the frames of the video displayed by the playback means ([0060-0068; 0096]).

With regarding **claim 5, Kotake** discloses a mobile communication terminal comprising:

position information acquiring means for acquiring position information (Fig. 5; GPS 97; [0048-0049]);

photographing means for acquiring images of field (Figs. 2-3; camera 91);

position information assigning means for associating each of the images, which are acquired by the photographing means in a predetermined time interval (Fig. 6; [0040]; the video frames data inherently include a plurality of images), with the position information which is acquired by the position information acquiring means and specifies the position at which the image is acquired ([0048-0049]);

video generating means for generating a video including frames each associated with the position information concerning the acquired position, based on a plurality of images which are photographed by the photographing means (91) and include the images each associated with the position information by the position information assigning means (abstract; [0039-0049; 0059]);

storage means (10) for storing the video generated by the video generating means and items of the position information (20) which are associated with the frames included in the video ([0039-0040]).

However, Kotake fails to disclose searching means for specifying, among the items of position information stored in the storage means, the position information corresponding to the position information acquired by the position information acquiring means to specify the frame of the video associated with the specified position

information; and playback means for displaying the frame of the video specified by the searching means.

In an analogous art, Rodden teaches a multimedia storage database having a relational database for convenient storage and retrieval of data elements based on user-entered contextual search elements (abstract). Rodden further teach a step for acquiring data element (202; Fig. 10; [0057-0063]) to obtain position data and/or for entering search element to retrieve and display all matching data elements (see step 222-226; 228; [0064-0066]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to modify the device of Kotake by having a multimedia storage database of Rodden in order to enter search element information and display all matching data elements. The modifications thus provide more convenient and powerful tool for multimedia searching.

With regarding **claim 6**, **Kotake** in view of **Rodden** discloses the mobile communication terminal wherein the playback means displays the video stored in the storage means (Kotake: abstract; 0007; 0029-0042; 0053), the mobile communication terminal further comprises map display means for displaying two-dimensional map information and displaying (Kotake: [0040-0041]), by superimposing onto the two-dimensional map information, a travel locus based on the position information associated with frames of the video displayed by the playback means (Kotake: [0060-0068; 0096]).

With regarding **claim 9**, **Kotake** discloses a program for causing a mobile communication terminal to operate as;

receiving means (associated data storage unit 50) for receiving a video which includes frames each associated with position information for specifying the acquired position, and items of the position information ([0038-0040]);

. position information acquiring means for acquiring position information ([0040]);

However, Kotake fails to explicitly disclose searching means for specifying, among the items of position information received by the receiving means, the position information corresponding to the position information acquired by the position information acquiring means to specify the frame of the video associated with the specified position information; and playback means for displaying the frame of the video specified by the searching means.

In an analogous art, Rodden teaches a multimedia storage database having a relational database for convenient storage and retrieval of data elements based on user-entered contextual search elements (abstract). Rodden further teach a step for acquiring data element (202; Fig. 10; [0057-0063]) to obtain position data and/or for entering search element to retrieve and display all matching data elements (see step 222-226; 228; [0064-0066]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to modify the device of Kotake by having a multimedia storage database of Rodden in order to enter search element information and display all matching data elements. The modifications thus provide more convenient and powerful tool for multimedia searching.

With regarding **claim 10**, **Kotake** discloses a program for causing a mobile communication terminal to operate as;

position information acquiring means for acquiring position information (Fig. 5; GPS 97; [0048-0049]);

photographing means for acquiring images of field (Figs. 2-3; camera 91);

position information assigning means for associating each of the images, which are acquired by the photographing means in a predetermined time interval (Fig. 6; [0040]; the video frames data inherently include a plurality of images), with the position information which is acquired by the position information acquiring means and specifies the position at which the image is acquired ([0048-0049]);

video generating means for generating a video including frames each associated with the position information concerning the acquired position, based on a plurality of images which are photographed by the photographing means (91) and include the images each associated with the position information by the position information assigning means (see Fig. 6; [0039-0049; 0059]), and for storing the video and items of the position information associated with the frames of the video in a storage means ([0039-0040]);

However, Kotake fails to disclose searching means for specifying, among the items of position information stored in the storage means, the position information corresponding to the position information acquired by the position information acquiring means to specify the frame of the video associated with the specified position

information; and playback means for displaying the frame of the video specified by the searching means.

In an analogous art, Rodden teaches a multimedia storage database having a relational database for convenient storage and retrieval of data elements based on user-entered contextual search elements (abstract). Rodden further teach a step for acquiring data element (202; Fig. 10; [0057-0063]) to obtain position data and/or for entering search element to retrieve and display all matching data elements (see step 222-226; 228; [0064-0066]). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to modify the device of Kotake by having a multimedia storage database of Rodden in order to enter search element information and display all matching data elements. The modifications thus provide more convenient and powerful tool for multimedia searching.

Allowable Subject Matter

9.   Claims 2 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reason for the indication of allowance:

Regarding **claim 2**, the prior art made of record and considered pertinent to the applicant's disclosure does not disclose nor fairly suggest the mobile communication

terminal according to claim 1 further in combination with: **frame rate adjusting means**

for adjusting the frame rate of the video, based on a plurality of images acquired by the

photographing means including the images each associated with the position

information by the position information assigning means, **the frame rate adjusting**

means dividing the plurality of images into a plurality of groups including a

predetermined number of images based on the order in which the images are

acquired, determining, for each of the groups, direction information indicating

the direction of a travel locus based on the position information associated with

the predetermined number of images in the corresponding group, setting, for

each of the groups, a frame rate for the video based on the predetermined

number of images in the corresponding group to a first frame rate when a

direction change amount based on the direction information determined for the

corresponding group and the direction information determined for at least one of

the previous group and the next group is larger than a predetermined amount

and settings the frame rate to a second frame rate lower than the first frame rate

when the direction change amount is equal to or smaller than the predetermined

amount;

wherein the video generating means generates the video using the plurality of

images, **according to the frame rate determined** for each of the plurality of groups.

Regarding **claim 7**, the prior art made of record and considered pertinent to the

applicant's disclosure does not disclose nor fairly suggest the mobile communication

terminal according to claim 5 further in combination with: **frame rate adjusting means for adjusting the frame rate of the video**, based on a plurality of images acquired by the photographing means including the images each associated with the position information by the position information assigning means, **the frame rate adjusting means dividing the plurality of images into a plurality of groups including a predetermined number of images based on the order in which the images are acquired, determining, for each of the groups, direction information indicating the direction of a travel locus based on the position information associated with the predetermined number of images in the corresponding group, setting, for each of the groups, a frame rate for the video based on the predetermined number of images in the corresponding group to a first frame rate when a direction change amount based on the direction information determined for the corresponding group and the direction information determined for at least one of the previous group and the next group is larger than a predetermined amount and settings the frame rate to a second frame rate lower than the first frame rate when the direction change amount is equal to or smaller than the predetermined amount;**

wherein the video generating means generates the video using the plurality of images, according to the frame rate determined for each of the plurality of groups.

Citation of Prior Art

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

       a) Buehler (US-2004/0,130,620) discloses a method and system for tracking metadata associated with an image sent by a plurality of camera.

       b) Slater (US-6,008,492) discloses a camera system for associating GPS data with each video frame.

       c) Prakash (US-2006/0,256,852) discloses a frame loader for transmitting video frame to other devices.

       d) Davis (US-7,010,144) discloses a camera system for transmitting the associated images and metadata to other communication devices.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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GEORGE ENG
SUPERVISORY PATENT EXAMINER